

Disclaimer: Bavarian Soundwerks highly recommends professional installation of the products we sell. We provide these installation instructions free of charge as a guide to assist those customers who choose to perform the installation themselves. Additionally, they may serve as a guide to assist a professional installer in order to expedite the installation of the customer's new products. However, Bavarian Soundwerks makes no guarantee, implied or expressed, as to the accuracy or safety of these instructions. Use of these instructions constitutes a waiver of all liability including, but not limited to, damage that may occur to the reader's, user's, or customer's vehicle, its components, and/or the reader, customer, or installer.

Instructions for Front Midrange Installation in '99-'05 BMW 3 Series Sedan, Wagon (E46)

Tools Required:

(All the below are readily available at your local auto parts store)

- **Philips Head Screwdriver**
- **Panel Removal Tool**
- **Torx T20 screwdriver**
- **Small, Straight Pick Tool**
- **Hot Glue Gun w/Glue Sticks**

We've broken down our instructions into each task so that you can take the process one step at a time and keep the project manageable!

Some important notes for you to keep in mind:

- If you have any questions about the procedures outlined below, please stop what you're doing and give us a call. If we're not available, and you're not sure if what you're doing is correct, put the car back together and hold off on the installation until we get everything clarified for you. Believe us, it's worth it. ☺
- **Read these instructions completely before starting!**
- When removing parts from your vehicle, to make reinstallation easier and simpler, we highly recommend the use of zip-lock bags with labels to organize the smaller the parts you're removing.
- ****IMPORTANT:** Before you make any connections, we recommend disconnecting the negative battery terminal from the battery. This will eliminate any chance electrical damage to the vehicle. Please note, however, that if you have your original BMW head unit and your vehicle was made in 2000 or earlier, you may need to have your "radio code" handy, typically found on a small card with your owner's manual. If you don't have this code, you can get it by calling your BMW dealership and providing your vehicle's VIN. Vehicles newer than 2000 do not need this code.

We've Made It Easy

It's all right here, step by step with photos. Complete disassembly instructions, along with several hints and tips throughout the process. We recommend starting with the passenger front door. As you proceed, only disassemble one door at a time. You don't want to confuse any parts or clips with the other doors.

For being as highly refined and masterfully engineered as it is, the removal of the doors and rear deck in the E46 is surprisingly effortless, provided you use care and patience throughout the process. Remember – don't force anything! If you are doing things correctly, steady firm pressure should do the trick. Don't hesitate to contact us if you get stuck!

As each customer's installation is unique, it is important to remember that installation is essentially the reverse of the removal process outlined below, though you will need a certain level of personal ingenuity.

1) Door Panel Removal

1. Start by rolling down the windows on all of the doors. This will decrease the chance of scratching the glass or tint on the window.
2. Orient yourself with the door. Read these instructions fully before beginning the installation process. This will again ensure proper planning and that the process goes as smoothly as possible.
3. You're now ready to begin. Starting with the passenger door, locate the large wood grain (or aluminum, depending on the trim level of your BMW) panel that runs along the top portion of the door panel.
4. Carefully, place your fingers under the outer side of the panel farthest away from the handle and carefully pry outward towards you (Figure 1). Be careful as the trim panel in effect hooks into the door handle area with three little inserts (Figure 2). As you are pulling the panel outward, and as you get towards the handle, carefully pull the panel out of the handle (Figure 3).



Figure 1

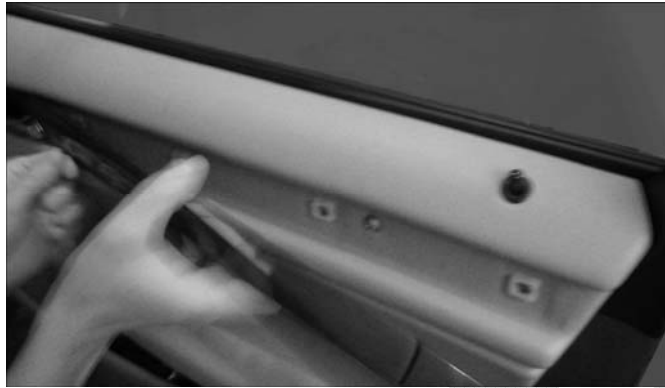


Figure 2



Figure 3

5. This will reveal two Torx T20 screws. Remove these. Put them aside in a place where you will not lose them.
6. Locate the small trapezoidal shape at the top of the door handle. It will match your interior color, so it may be black or tan. Carefully insert the head of the small flat head screwdriver underneath the insert as shown and carefully pry upward (Figure 4).



Figure 4

7. This too will reveal a single Torx T20 screw. Remove this, and put it with the rest of the bolts.
8. Only two more screws are left, and they are located behind the two plastic inserts on the underside of the armrest (Figure 5). Remove the two bolts and you are now ready to begin removing the actual door panel.



Figure 5

9. Carefully insert your panel removal tool on the front side bottom edge as shown. Pry steadily outward until you hear the clip(s) release themselves (Figure 6).

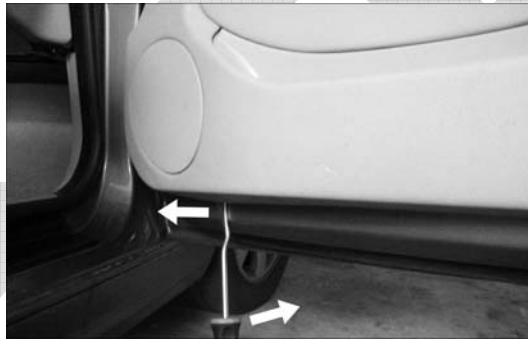


Figure 6

10. Now, using your hands, as this will decrease the chances of anything becoming scratched; continue pulling outward around the outer edges of the door (Figure 7). Leave the top part attached, as we will remove this section last.



Figure 7

11. Carefully pull outward and upward from the rear of the door along the top edge (Figure 8).



Figure 8

12. Be careful of the lock mechanism because the door can be released now, but you aren't quite finished. You have to unhook the door handle itself. Simply lift the white clip away from the door panel, and pull it out of the mechanism (Figure 9).



Figure 9

13. Unplug the speaker wires from each speaker and you're good to go!

2) Midrange Removal & Installation

1. To remove the factory midrange, you'll first need to free the speaker assembly from the door panel itself. Unscrew the plastic ring from the rear of the assembly by turning it counter clockwise. Push the front portion of the assembly through the door panel, being careful not to damage the thin plastic ring around the outer perimeter (Figure 10).

IMPORTANT: The plastic surrounding the outer edge mentioned above is notoriously brittle. Try your best not to handle the speaker assembly by this outer edge. Now may also be the time to repair the ring(s) if any cracking has previously occurred.



Figure 10

2. There are two pairs of opposing tabs located closer to the front of the assembly. Pry these tabs outward, and the speaker will be free at this point. (Figure 11)

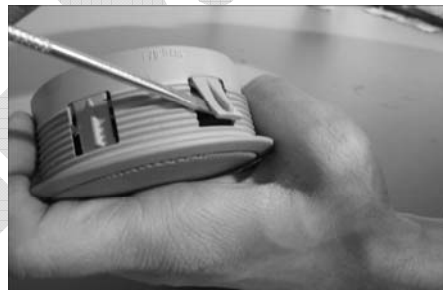


Figure 11

3. Push the tabs that secured the speaker on the front of the assembly back into place, and drop the new midrange directly into the assembly with the speaker cone facing outward (towards the grille). We had to specify here. ☺

4. Place a bead of hot glue around the speaker where it comes into contact with the assembly, making sure not to get any glue on the speaker itself. (Figure 12)



Figure 12

5. Plug the included wires onto the new midrange speaker terminals, using the following guide:
 - The red wire is Positive (+)
 - The black wire is Negative (-)
6. Create connections between original wiring and new midrange wiring according to the chart below (for the specific process, see steps 6a-6e).

Connection	Wire Color at Mid	Connects to:	Wire Color on Vehicle
Driver Midrange +	Red		White
Driver Midrange -	Black		Blue w/ White Stripe
Passenger Midrange +	Red		Green
Passenger Midrange -	Black		Blue w/ Green Stripe

- a. Strip back approximately 1/4" of the insulation from the end of the vehicle wire, exposing the copper wiring.
 - b. Insert the vehicle wire into one side of the appropriate butt connector on midrange leads and crimp.
 - c. Gently tug at each side of the connection to insure it is secure and permanent.
 - d. Wrap with electrical tape.
 - e. Repeat until for second connection.
7. Place the front portion the assembly back through the door panel, and screw the ring back into place, securing the assembly.

8. Plug the midrange back in, along with any other connections you may have disconnected (the tweeters, mirror controls, etc).
9. Here is a completed photo of what your car should look like. (Non HK shown for reference only)



Reinstall your door panel. Reinstallation is the reverse of removal. Repeat for the second door, and you're done!